

Claims

- [c1] A vehicular door handle assembly for selectively opening a vehicle door, the door handle assembly comprising:
- a primary actuator adapted to be mounted to a vehicle door, wherein the primary actuator has a first user interaction portion for moving the primary actuator between a latched position and an opened position, and wherein the vehicle door is opened by a user by moving the user interaction portion of the primary actuator between the latched position and the opened position; and
- a secondary actuator operatively associated with the primary actuator, wherein the secondary actuator has a second user interaction portion for moving the secondary actuator between a secure position, wherein movement of the primary actuator from the latched position to the opened position is prevented, and a release position, wherein the primary actuator can move from the latched position to the opened position; wherein the second user interaction portion is aligned with at least a portion of the first user interaction portion so that attempted movement of the primary actuator out of the latched position first causes the secondary actuator to be moved from the secure position to the release position.
- [c2] The vehicular door handle assembly according to claim 1, wherein the primary actuator comprises a handle, and the first user interaction portion comprises a handle hand grip region.
- [c3] The vehicular door handle assembly according to claim 2, wherein the secondary actuator comprises a trigger mounted to the handle, and the second user interaction portion comprises a trigger hand grip region.
- [c4] The vehicular door handle assembly according to claim 3, wherein during

the attempted movement of the primary actuator out of the latched position, the user grasps both the handle hand grip region and the trigger hand grip region and moves the trigger hand grip region towards the handle hand grip region to move the trigger from the secure position to the release position.

- [c5] The vehicular door handle assembly according to claim 4, wherein the trigger is pivotally mounted to the handle.
- [c6] The vehicular door handle assembly according to claim 1 and further comprising a biasing member that biases the secondary actuator to the secure position.
- [c7] The vehicular door handle assembly according to claim 6, wherein the biasing member is a leaf spring.
- [c8] The vehicular door handle assembly according to claim 1 and further comprising a latch operatively associated with the secondary actuator and operable between an active condition, wherein the latch prevents movement of the primary actuator from the latched position, and an inactive condition, wherein the latch allows movement of the primary actuator from the latched position, and wherein movement of the secondary actuator from the secure position to the release position inactivates the latch.
- [c9] The vehicular door handle assembly according to claim 8 and further comprising a latch receiver adapted to be mounted to the vehicle door adjacent the primary actuator such that the latch is partially received by the latch receiver and partially received by the primary actuator when the latch is in the active condition.

- [c10] The vehicular door handle assembly according to claim 9 and further comprising a biasing member that biases the secondary actuator to the secure position and the latch to the active condition, and movement of the secondary actuator against the bias of the biasing member to the release position withdraws the latch from the latch receiver to the inactivate the latch.
- [c11] The vehicular door handle assembly according to claim 10 wherein the biasing member biases the secondary actuator away from the primary actuator, and the attempted movement of the primary actuator out of the latched position causes the secondary actuator to be moved against the bias of the biasing member and towards the primary actuator.
- [c12] The vehicular door handle assembly according to claim 10, wherein the secondary actuator is pivotally mounted to the primary actuator, and pivotal movement of the secondary actuator relative to the primary actuator translates into linear movement of the latch relative to the latch receiver.
- [c13] The vehicular door handle assembly according to claim 12, wherein the latch comprises at least one flange, and the secondary actuator comprises a cam in operative communication with the at least one flange to effect the linear movement of the latch.
- [c14] The vehicular door handle assembly according to claim 13, wherein the cam comprises at least one pair of arms that define a groove therebetween, and the at least one flange is slidingly received by the groove.
- [c15] The vehicular door handle assembly according to claim 9, wherein the latch comprises at least one flange, the secondary actuator comprises at

least one arm, and wherein during the movement of the primary actuator from the secure position to the release position, the at least one arm abuts the at least one flange to induce movement of the latch out of the latch receiver to the inactive condition.

- [c16] The vehicular door handle assembly according to claim 9, wherein the secondary actuator comprises a button connected to the latch through a pivot arm pivotally mounted the primary actuator.
- [c17] The vehicular door handle assembly according to claim 16, wherein the latch comprises a detent that is positioned within the latch receiver when the latch is in the active condition.
- [c18] The vehicular door handle assembly according to claim 17, wherein the attempted movement of the primary actuator from the latched position causes depression of the button and movement of the detent out of the latch receiver.
- [c19] The vehicular door handle assembly according to claim 9 and further comprising a latch biasing member that biases the latch into the latch receiver.
- [c20] The vehicular door handle assembly according to claim 19, wherein the latch is magnetic, and the secondary actuator comprises a magnet that draws the latch from the latch receiver when the secondary actuator is in the release position.
- [c21] The vehicular door handle assembly according to claim 20, wherein the latch biasing member comprises a magnet, wherein the magnet of the secondary actuator is stronger than the magnet of the latch biasing member.

- [c22] The vehicular door handle assembly according to claim 20, wherein the latch biasing member comprises a spring that surrounds the latch and is held in place by a retaining head on an end of the latch.
- [c23] The vehicular door handle assembly according to claim 19, wherein the latch biasing member comprises a magnet, and the latch is magnetic.
- [c24] The vehicular door handle assembly according to claim 23 and further comprising a second latch biasing member operably mounted to the latch to bias the latch to the inactive condition, wherein attraction of the latch to the magnet is stronger than the bias of the second latch biasing member.
- [c25] The vehicular door handle assembly according to claim 1, wherein the primary actuator comprises a paddle, and the secondary actuator comprises a trigger pivotally mounted to the paddle.
- [c26] The vehicular door handle assembly according to claim 25, wherein the trigger comprises a latch mounted thereto and operable between an active condition, wherein the latch prevents movement of the paddle from the latched position, and an inactive condition, wherein the latch allows movement of the paddle from the latched position, and wherein movement of the trigger from the secure position to the release position inactivates the latch.
- [c27] The vehicular door handle assembly according to claim 26, wherein the latch extends through an aperture in a door panel of the vehicular door and comprises a detent that abuts an inside surface of the door panel when the latch is in the active condition, and wherein pivotal movement of the trigger from the secure position to the release position removes the detent from abutting contact with the inside surface the door panel to inactivate the latch so that the paddle can move from the latched position

to the opened position.

- [c28] A vehicular door handle assembly for selectively opening a vehicular door, the door handle assembly comprising:
a primary actuator adapted to be mounted to a vehicle door and movable between a latched position and an opened position, and wherein the vehicle door is opened by a user by moving the primary actuator between the latched position and the opened position; and
a secondary actuator operatively associated with the primary actuator and movable between a secure position, wherein movement of the primary actuator from the latched position to the opened position is prevented, and a release position, wherein the primary actuator can move from the latched position to the opened position;
wherein the primary actuator and the secondary actuator have a common actuation path so that attempted movement of the primary actuator out of the latched position first causes the secondary actuator to be moved from the secure position to the release position.
- [c29] The vehicular door handle assembly according to claim 28, wherein the primary actuator comprises a handle with a first user interaction portion.
- [c30] The vehicular door handle assembly according to claim 29, wherein the secondary actuator comprises a trigger mounted to the handle and having a second user interaction portion.
- [c31] The vehicular door handle assembly according to claim 30, wherein during movement of the primary actuator and the secondary actuator through the common actuation path, the user grasps both the first user interaction portion and the second user interaction portion and moves the second user interaction portion towards the first user interaction portion to

move the trigger to the release position.

- [c32] The vehicular door handle assembly according to claim 31, wherein the first and second user interaction portions are hand grip regions on the handle and on the trigger.
- [c33] The vehicular door handle assembly according to claim 28, wherein the common actuation path is linear.
- [c34] The vehicular door handle assembly according to claim 28, wherein the common actuation path is arcuate.
- [c35] A vehicular door handle assembly for selectively opening a vehicular door, the door handle assembly comprising:
an actuator adapted to be mounted to a vehicle door and movable through an actuation path to an opened position, and wherein the vehicle door is opened by a user by moving the actuator to the opened position;
and
a latch operatively associated with the actuator for selectively preventing movement of the actuator to the opened position;
wherein the actuation path comprises a first portion and a second portion, and movement of the actuator through the first portion deactivates the latch so that the actuator can move through the second portion to the opened position, and wherein the first portion and the second portion of the actuation path are serially aligned and substantially indistinguishable to a user during attempted movement of the actuator to the opened position.
- [c36] The vehicular door handle assembly according to claim 35 wherein the actuator comprises a secondary actuator movable to a release position during the first portion of the actuation path for deactivating the latch.

- [c37] The vehicular door handle assembly according to claim 36 wherein the actuator has a first user interaction portion for moving the actuator to the opened position, the secondary actuator has a second user interaction portion for moving the secondary actuator to the release position, and wherein the second user interaction portion is aligned with at least a portion of the first user interaction portion so that the attempted movement of the actuator to the opened position first causes the secondary actuator to be moved through the first portion of the actuation path.
- [c38] The vehicular door handle assembly according to claim 37, wherein the actuator comprises a handle, and the first user interaction portion comprises a handle hand grip region.
- [c39] The vehicular door handle assembly according to claim 38, wherein the secondary actuator comprises a trigger mounted to the handle, and the second user interaction portion comprises a trigger hand grip region.
- [c40] The vehicular door handle assembly according to claim 39, wherein during the attempted movement of the actuator to the opened position, the user grasps both the handle hand grip region and the trigger hand grip region and moves the trigger hand grip region towards the handle hand grip region during the first portion of the actuation path.